

c1
cm2
predetermined concentration is supplied to the gas mixture in the chamber to lower burst and spiking phenomena caused in the pulsed laser output and to improve an energy value. --

ch
-- 12. (Amended) An excimer laser device having a mechanism for sealing a gas mixture composed of a rare gas selected from the group consisting of Kr and Ar, which is a buffer gas of Ne, and a halogen gas in a chamber and carrying out pulse oscillation in the chamber to excite the gas mixture and output a pulsed laser, wherein a xenon gas having a predetermined concentration is previously mixed with the gas mixture before it is sealed in the chamber and a predetermined amount of the gas mixture containing the xenon gas is supplied in the chamber to lower burst and spiking phenomena caused in an excimer laser and to improve an energy value during the pulsed laser output. --

c2
-- 14. (Amended) Gas for excimer laser adapted for use in an excimer laser device having a mechanism for oscillating pulsed laser by exciting gas for excimer laser sealed in a chamber, wherein the gas for excimer laser is a gas mixture of a rare gas selected from the group consisting of Kr and Ar, a buffer gas of Ne, a halogen gas, and an effective amount of xenon gas for reducing burst and spiking phenomena caused in the excimer laser device and improving an energy value during burst operation. --

CA -- 16. (Amended) Gas for excimer laser adapted for use in an excimer laser device having a mechanism for sealing gas for excimer laser in a chamber and carrying out pulse oscillation in the chamber based on narrow-band pulsed light input from band-narrowing means to excite the gas for excimer laser to output an oscillated pulsed laser, wherein the gas for excimer laser is a gas mixture of a rare gas selected from the group consisting of Kr and Ar, a buffer gas of Ne, a halogen gas, and an effective amount of xenon gas for reducing burst and spiking phenomena caused in the excimer laser device and improving an energy value during burst operation.--

CS -- 18. (Amended) An excimer laser output stabilizing method for stabilizing an excimer laser output based on pulsed laser oscillation of an excimer laser device having a mechanism for sealing a gas mixture in a mixed gas chamber; the gas mixture composed of a rare gas selected from the group consisting of Kr and Ar, a buffer gas of Ne, a halogen gas, and an effective amount of xenon gas for reducing burst and spiking phenomena caused in the excimer laser device during burst operation; and carrying out the pulse oscillation in the chamber to excite the gas mixture to oscillate pulsed laser, the method comprising the steps of:

sealing the gas mixture in the mixed gas chamber; and
supplying xenon gas into the mixed gas chamber in an amount effective for reducing burst and spiking phenomena caused in the excimer laser device and improving an energy value during burst operation. --

-- 22. (Amended) An excimer laser output stabilizing method for stabilizing an excimer laser output based on pulsed laser oscillation of an excimer laser device having a mechanism for sealing a gas mixture composed of a rare gas selected from the group consisting of Kr and Ar, a buffer gas of Ne, and a halogen gas in a chamber and carrying out the pulse oscillation in the chamber to excite the gas mixture and output oscillated pulsed laser, the method comprising:

a mixing step of previously mixing a predetermined concentration of xenon gas into the gas mixture before it is sealed in the chamber; and

a gas supplying step of supplying a predetermined amount of gas mixture having the predetermined concentration of xenon gas mixed therein,

wherein the predetermined amount of gas mixture having the predetermined concentration of xenon gas mixed therein is supplied into the chamber to lower burst and spiking phenomena caused in an excimer laser output and to improve an energy value. --